

REMARKS

Claims 1-12 are pending in the application, with Claims 1, 5, and 9-12 being independent. Claims 1, 4, 5, and 8-12 have been amended. No new matter has been added.

Initially, Applicant notes with appreciation the indication that Claims 10-12 are allowable, and that Claims 4 and 8 would be allowable but for their dependence on a rejected base claim. Claims 10-12 have been amended herein to even more clearly recite features of Applicant's invention. Applicant submits that Claims 10-12, as amended, remain in condition for allowance.

In the Official Action, Claim 8 was objected to on formal grounds. Claims 1-3, 5-7 and 9 were rejected under 35 U.S.C. § 103(a), as being obvious over U.S. Patent No. 5,093,869 (Alves et al.), in view of U.S. Patent No. 5,923,822 (Takahashi) and U.S. Patent No. 4,975,860 (Kitaya et al.). This rejection is respectfully traversed.

As presently presented, independent Claim 1 recites an image processing apparatus capable of drawing a gradient fill object defined by at least two apexes each having coordinate data and gray level value, said gradient fill object being described as a print object capable of being interpreted by the image processing apparatus. The apparatus comprises, *inter alia*, detection means for detecting whether or not an object is a gradient fill object having gradation in a horizontal or vertical direction, by interpreting the print object, and pixel count detection means for detecting, by interpreting the print object, a number of pixels which have substantially the same gray level value and are consecutively present in a direction perpendicular to the direction of gradation detected by said detection means.

According to Applicant's invention, as recited in independent Claim 1, the detection of a direction of a gradient fill object and the detection of the number of pixels are performed by interpreting a print object which is described by an intermediate language before being rendered as a bit map object. None of the cited documents discloses or suggests detecting gradation direction of an object from data described by an intermediate language. Rather, the cited documents use bit map data which already has been rendered from transmitted data or intermediate data. Support for this feature of Applicant's invention can be found in the original disclosure at least at page 15, lines 19-26. In addition, with reference to the drawings, the gradation direction is detected from the print object at S4002 in Fig. 4A, and the bit map data is created from the print object at the drawing processing of S4004 and S4006 in Fig. 4A. From this, Applicant submits that it would be apparent to one of ordinary skill in the art that in Applicant's invention, the print object before drawing processing is described by an intermediate language.

The Alves et al. patent is directed to a pattern recognition apparatus, and discloses a scene recognition system that employs a series of transformations that converts image information into progressively more compressed and abstract forms. However, in the Alves et al. patent, image information is bit map data inputted through a sensor equivalent to an image sensed by a camera or scanner. That is, the Alves et al. patent only discloses creating a symbolic image from an image obtained by scanning and sensing an image, but never discloses or suggests creating a gradation fill object by interpreting a print object described in an intermediate language. Thus, the Alves et al. patent fails to disclose or suggest salient features of Applicant's invention.

The Takahashi patent is directed to an image forming apparatus and method, and discloses storing data showing edited results of figures processed by a control section, and exchanging data between the control section and the image memory section (see e.g., col. 6, lines 5-55. However, Applicant submits that the Takahashi patent neither discloses nor suggests creating a gradation fill object by interpreting a print object described by an intermediate language. This is because the Takahashi patent only contemplates exchanging pixels, but never replicates drawn pixels equal to the number detected by the pixel count detection means, as disclosed in the present application. Accordingly, the Takahashi patent fails to remedy the deficiencies in the Alves et al. patent noted above, with respect to independent Claim 1.

The Kitaya et al. patent is directed to an apparatus for automatically drawing a dot pattern; however, it too fails to remedy the deficiencies noted above with respect to the Alves et al. and Takahashi patents.

For at least the foregoing reasons, Applicant submits that Claim patentably defines over the cited documents. Independent Claims 5 and 9 each recite features along the lines of those discussed above with respect to Claim 1, and are allowable for substantially the same reasons discussed above with respect to Claim 1. Independent Claims 10-12 remain in condition for allowance.

The dependent claims are also allowable, in their own right, for defining features of the present invention in addition to those recited in their respective independent claims. Individual consideration of the dependent claims is requested.

Favorable consideration of the claims and passage to issue of the present application at the Examiner's earliest convenience are respectfully requested.

Applicant's undersigned attorney may be reached in our Washington, D.C. office by telephone at (202) 530-1010. All correspondence should continue to be directed to our below-listed address.

Respectfully submitted,



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